

Parsons Brinckerhoff (PB) Post-Processing Data Checks

PB's review of data will include the following:

Review of interim datasets to assure that all logic checks specified in the MORPACE Post-Processing Data Checks section of the *Data Coding and Quality Control Manual* meet specifications. The following checks will be made by PB for the following record sets:

1. Home File

- a. Check that the month/day combinations are correct and that they match the day of the week variable
- b. Check that the number of workers in the household does not exceed the number of people in the household
- c. Check that the number of subsidized vehicles does not exceed the number of vehicles available in the household
- d. Ensure that all the following fields have information

2. Person File

- a. Check that the QNO has corresponding QNO in home file
- b. Check if person number proxy is less than number of people in the household
- c. Check if person interviewed was under 16 years of age was proxied
- d. Check for transit pass and type of transit pass
- e. Check person number does not exceed number of persons in home file
- f. Check respondents under 16 years of age are not licensed driver and are not applicable
- g. Check respondents 18 years of age or older are not code 3 or less for education level, check that respondents 18 year of age or younger are code 3 or less
- h. If currently a student, check for school name through school zone
- i. Check that respondents under 16 years of age are code 5 in working status
- j. Check that respondents that are not working are asking the not working status question
- k. Check that worker questions are only asked if working status is code 1 or code 2
- l. Check that only respondents who indicated "other" industry have an answer for other industry
- m. Check that only respondents who have a fixed workplace have answers for work address through work zone.
- n. Check that secondary job questions are only asked if respondent has more than one job.
- o. Check that respondents who completed the diary are not code 3 for using the completed diary, other respondents should be code 3 for using completed diary
- p. Check that no information is missing for the following: Gender, Age, Age Range, Relationship, Licensed Driver, Transit Pass, Education Level, School Type, Working Status, Proxy, Diary Completed, Long Distance Trip

3. Trip File

- a. Check that only respondents who indicated "other" for type of origin, destination, type of transportation, bus provider have an answer in the other category
- b. Check that the number of TRAV=2 is equal to the number of people in the study
- c. Check that all cases of TRAV=2 and TRIPNUM=0 provided a reason for no travel
- d. If the trip number is greater than zero, check time of departure and type of transportation used
- e. Check that bus provider is not missed if trip involved dial-a-ride or public bus
- f. Check for pay for trip if transportation mode is 6,7,8, or 9
- g. Check for amount paid if paid for trip
- h. If Type of Transportation used is 1,2,3, then check to make sure if driver or passenger and number of people in vehicle and that number of household members is not greater than number of persons in household
- i. Check that respondent is not listed as a household member in the vehicle
- j. If Type of Transportation Used is 1,2,3, then check for household vehicle used in trip and pay for parking
- k. Check to see if paid for parking that amount paid, parking rate are valid

- l. If parking rate is other, check for other parking rate
- m. Check that all cases (except those respondents that did not travel) are not missing arrival time or destination time
- n. Check that arrival time is after departure time
- o. Check length of trip
- p. Check Tour Activities for Logical Progressions
- q. Check Average Number of Trips per households by day to monitor drop-off of reported trips on second day
- r. Check percentage of workers who didn't make a work trip
- s. Long Distance File
- t. Check for respondents that indicated "other" for Transportation to Reach Location, Type of Transportation Used has a value in the corresponding other field
- u. If public bus was used for Transportation to Reach Location, or Type of Transportation Used, check bus provider for corresponding bus field
- v. Check that the number of times the trip was taken in the last three months is less than the number of times the trip has been taken in the last 12 months

4. Review of zero trip households for exclusion or inclusion based on reasonability standards.

5. Review of interim sampling data cell target progress and deviations. PB will create and review the table to review sampling and make recommendations based on the results of these tables:

6. Total Number of households by cell completed

Percent complete by cell for each geographic region, by household size, auto ownership, and number of workers

7. Review of geocoding results codes and non-geocodable issues and rates, based on reasonability standards. The geocoding checks which will be performed by PB has been outlined in detail in the Geocoding Manual.

8. Review of interim geocoding points by TransCad for time duration and distance testing with a flagging of all points not meeting logic standards. The description of time checks to be performed by PB has been outlined in detail in the Geocoding Manual.

9. Review of monthly report tables, progress, and corrective actions.

10. PB Reports

PB's reports will be in writing, citing specific case problems, and will be sent via e-mail in Microsoft Word format. The report will be in the following format:

- a. Executive Summary
- b. Review of Logic Checks
- c. Introduction: Total number of records received from MORPACE to PB by record type
- d. Listing of Problems found by dataset
 - Household
 - Person
 - Trip
 - Long Distance
 - Visitor
- e. Recommendations
- f. Review of Zero Trip Households
- g. Summary of zero trip households and zero trip persons, detailing the reasons for each household or person
- h. Recommendations
- i. Review of interim sampling data target process and deviations

- j. Tables showing sampling rates and target rates for data received since last submission and data received to date. Significant target differences will be highlighted and comments made.
- k. Recommendations
- l. Review of geocoding results
- m. Introduction detailing number of records received total from MORPACE and the number of geocoded records by type of geocoding results (address, intersection, TAZ, and non-geocodable) and the percentage. This will be done for the household file as well as for the trip file.
- n. Summary of geocoding checks performed by PB, which is detailed in the Geocoding Manual.
- o. Geocoding Points Summary – details on those points which could have a higher accuracy and nongeocodable points, also summaries on multi-TAZ points
- p. Time Duration Summary – details on those records that have trip time duration inconsistencies
- q. Recommendations

The Executive Summary of the report will give a brief summary of each of sections 2 through 5 and highlight general recommendations of the review. The recommendations for each section will be more detailed and provide direction to MORPACE and MDOT concerning actions that should be taken, recommended to be taken, or to be furthered reviewed.